

20030806.ba v03_n522.bam.20030806

>From ???@??? Wed Aug 6 19:05:48 2003 -0500
Message-Id: <200308070005.h7705gnc005388@sco.theporch.com>
Date: Wed, 6 Aug 2003 19:03:52 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3522

BOATANCHORS Digest 3522

Topics covered in this issue include:

- 1) Re: Meter Shunt
by WA5CAB@cs.com
- 2) Re: Pictures to help identify Home Brew receiver?
by Henry van Cleef <vancleef@eskimo.com>
- 3) Re: Zenith 6Q601L Radio
by Dave Hollander <n7rk@cox.net>
- 4) Re: Pictures to help identify Home Brew receiver?
by W7QH0@aol.com
- 5) Re: Meter Shunt
by Mike Feher <n4fs@monmouth.com>
- 6) Why is Filament Voltage so low?
by "James C. Garland" <4cx250b@muohio.edu>
- 7) Re: Why is Filament Voltage so low?
by John Shriver <jshriver@sockeye.com>
- 8) Looking for a Sams book or....
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 9) RE: Lysco
by "Freeberg, Scott (STP)" <Scott.Freeberg@guidant.com>
- 10) Fwd: Re: Pictures to help identify Home Brew receiver?
by Richard Post <postr@ohiou.edu>
- 11) Re: Looking for a Sams book or....
by Henry van Cleef <vancleef@eskimo.com>
- 12) Re: Pictures to help identify Home Brew receiver?
by "James C. Garland" <4cx250b@muohio.edu>
- 13) Tube identification question
by "James C. Garland" <4cx250b@muohio.edu>
- 14) RE: Lysco
by john <johnmb@nc.rr.com>
- 15) Re: Tube identification question
by John Dilks - K2TQN <oldradio@worldnet.att.net>
- 16) Re: Tube identification question
by Brian Goldsmith <brian.goldsmith@echo1.com.au>
- 17) What's it called and where can I get a couple?
by James Reid <jreid@ci.santa-maria.ca.us>
- 18) FS: CU-1099/FRR

by WA5CAB@cs.com
19) Re: Tube identification question
by Bob Roehrig <broehrig@aurora.edu>

From: WA5CAB@cs.com
Message-ID: <184.1ec6fc43.2c61d59e@cs.com>
Date: Tue, 5 Aug 2003 23:53:02 EDT
Subject: Re: Meter Shunt
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_184.1ec6fc43.2c61d59e_boundary"

--part1_184.1ec6fc43.2c61d59e_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Al & Chuck

I know I'm picking nits here, but divide by 999. The meter movement itself will carry 0.10 % of the current.

The exact figure can be derived as follows once you know the DC resistance of your 0-10MA meter which we will call R(meter).

$V(\text{meter}) = 0.01 \times R(\text{meter})$ {voltage across the meter at full
scale - 0.01 A = 10 MA}

$R(\text{shunt}) = V(\text{meter}) / 9.990$ {voltage across the shunt at 9.990 A
which is 10 A minus the 10 MA that will flow through the meter}

If V(meter) turns out to be close to 50 MV, then you can buy a commercial 50 MV 10 A shunt. But it really isn't too likely to.

Also, most DVM's run much lower current in the ohms ranges than analog multimeters do but some don't. Play it safe and put something like a 100 K pot turned up to max in series with the MA meter and the DVM. Once connected (and reading something over 100 K), turn the pot toward zero until either the MA meter goes to full scale or the pot gets to zero. If the former happens, you'll have to try another DVM or use one of the classic methods.

Hope I didn't misplace a decimal. :-) Slide rules don't handle those very well.

In a message dated 8/5/2003 9:53:42 PM Central Daylight Time,
skywaves@bw.webex.net writes:

> Quick and dirty:
> Measure the meter resistance with a DVM. Divide by 1000.

73

Robert Downs - Houston
<<http://www.wa5cab.com>>
<wa5cab@cs.com>

--part1_184.1ec6fc43.2c61d59e_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_184.1ec6fc43.2c61d59e_boundary--

From: Henry van Cleef <vancleef@eskimo.com>
Message-Id: <200308060440.VAA00294@eskimo.com>
Subject: Re: Pictures to help identify Home Brew receiver?
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 5 Aug 2003 22:40:31 -0600 (MDT)
Cc: boatanchors@theporch.com (Old Tube Radios)
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The esteemed Richard Post has said:

>
> I shot some pictures of the Home Brew receiver. Uploaded at:
>
> <http://oak.cats.ohiou.edu/~postr/bapix/HB_hroD1.htm>
>
>
> >
> >Picked up a beautifully-constructed homebrew receiver at last
> >Saturday's hamfest in Columbus, OH.
> >
> >Anyone recognize it?
> >
> >73,

> >

> >Rich

>

That is indeed a nicely-made set. It may well be a one-off design done by somebody with serious design engineering skills and access to a good shop for building prototypes.

In any event, I'd get out my ohmmeter and start ringing out the set, looking for standard circuits. Probably the second try at drawing a schematic will reveal standard circuits throughout, and tube operated at one of the "typical operation" points given in the tube manuals.

The general layout, it seems to me, is standard and obvious, unless your ring-out proves me dead wrong.

Three tubes to the left of the variable cap are a standard RF/LO/Mixer. What's to the left of them, with the three crystals will be a front end conversion setup. The back tube in the chain is the mixer, and feeds the left IF transformer. IF proceeds from left to right, ending at the detector/AVC rectifiers----check to see exactly how this is wired and if AVC comes from the same output as the detector, or is taken from somewhere else, like thru a cap from the 2nd IF plate to a separate diode in the 6H6. Odds are on that the 6SJ7 is the audio voltage amp, feeding the 6V6 grid. The 12AU7 is probably 1/2 BFO oscillator and the other side may be a mixer for a product detector.

Check out the IF frequency---some work with a grid dip should settle that question. Check to see if you have a high oscillator (i.e., tracks RF at IF frequency higher)---generally obvious by a padding cap in the tuned circuit in the oscillator. If the RF's are padded, you probably have low oscillator (uncommon in HF sets with separate LO). If the IF is above 455 KHz, the set is going to be as broad as a barn door, and I'd look for some sort of additional "single signal" filter.

I'd have to know a bit more to decipher the tuning scheme. I'd guess that the main tuning cap covers a fairly narrow range of frequencies, and that the position marked "80-20" is meant to be used with the crystal stuff to the left of the head end.

Critical voltages in the set will be the screen voltage to the IF's and the preset bias in the RF/IF cathode resistors.

Hank

--

Hank van Cleef (vancleef@eskimo.com, hvanclee@nyx.net)
1986 420SEL

Message-ID: <3F3088ED.4C1E065D@cox.net>
Date: Tue, 05 Aug 2003 21:49:43 -0700
From: Dave Hollander <n7rk@cox.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>, n3rht@yahoo.com
Subject: Re: Zenith 6Q601L Radio
Content-Type: text/plain; charset=us-ascii; x-mac-type="54455854"; x-mac-creator="4D4F5353"
Content-Transfer-Encoding: 7bit

Hi Don - does it look like this radio which is in my collection?

http://members.cox.net/azradio/source/zenith_portable-1942.htm

Dave N7RK

--

Dave N7RK <http://members.cox.net/n7rk>
Phoenix, Arizona *DXCC Honor Roll* *WAZ#23 - 75 Meter SSB*

ex-XE2/N7RK, N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor and Antique Radio Collector Extraordinaire preferring
Hallicrafters, National and what ever else looks interesting!

From: W7QH0@aol.com
Message-ID: <12d.2ec9e288.2c61fc88@aol.com>
Date: Wed, 6 Aug 2003 02:39:04 EDT
Subject: Re: Pictures to help identify Home Brew receiver?
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_12d.2ec9e288.2c61fc88_boundary"

--part1_12d.2ec9e288.2c61fc88_boundary
Content-Type: text/plain; charset="ISO-8859-1"
Content-Transfer-Encoding: quoted-printable

In a message dated 8/5/03 9:41:13 PM, vancleef@eskimo.com writes (in part):

> Check out the IF frequency---some work with a grid dip should settle
> that question.=A0=A0 Check to see if you have a high oscillator (i.e.,
> tracks RF at IF frequency higher)---generally obvious by a padder cap
> in the tuned circuit in the oscillator.=A0 If the RF's are padded, you
> probably have low oscillator (uncommon in HF sets with separate L0).
> If the IF is above 455 Khz, the set is going to broad as a barn door,
> and I'd look for some sort of additional "single signal" filter.
>=20

The IF cans are out of the military BC-312/342 receivers where they were=20
normally peaked at 470 kc. Unless they've been modified the selectivity wi=
th=20
what appears to be two IF stages would be somewhat broad (8 - 10 kc).

Dennis D. W7QHO
Glendale, CA

--part1_12d.2ec9e288.2c61fc88_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *

--part1_12d.2ec9e288.2c61fc88_boundary--

Date: Wed, 06 Aug 2003 06:48:51 -0400
From: Mike Feher <n4fs@monmouth.com>
Subject: Re: Meter Shunt
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <001401c35c08\$54438230\$1101a8c0@eoz>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Whether you divide by 1000 or 999 is not relevant. You are more than likely
not going to find a 0.1% resistor for the shunt anyway, and even if you did,
the analog display would never be able to display it. Al's method is the

quickest and will give the same result. The theory has been explained before. For full scale you want 10 ma. out of the total to go through the meter to give full scale which leaves 9.99 Amps to go through the shunt. So, like Al and Bob said, measure the meter resistance and using ohms law figure out what voltage at that resistance will give you a 10 ma reading. Then, take that same voltage and figure out what resistance the parallel shunt needs to be in order to generate that voltage with 9.99 amps through it. Simply, the ratio of resistances is 1 to 999 (the same as the ratio of the two currents), or as Al said, simply divide the meter resistance by 1000 to find shunt resistance. While more than likely the resistance you will need will be very small, do not forget to calculate the power required by the shunt. Also, the smaller the shunts resistance the less voltage you will loose across it.73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

Message-Id: <5.1.0.14.2.20030806074029.0338e320@admin.muohio.edu>
Date: Wed, 06 Aug 2003 07:51:07 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: "James C. Garland" <4cx250b@muohio.edu>
Subject: Why is Filament Voltage so low?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hi Gang,
I was surfing EBay and noticed a water-cooled 4CW100000D for sale. The specs on the tube show the filament requirements to be 10V at 295 Amps. It occurred to me that this is a rather inconvenient rating, since the "wires" to the filament must presumably be heavy copper bus bars. So my question is, why are tube filaments such a low voltage? (I know there are exceptions for some receiving tubes with 115V filaments.). In principle, wouldn't it be better in this example if the tube filaments needed 100V at 29.5 Amps, or even 1000V at 2.95 Amps? Presumably the answer must have to do with the mass of the filament and it's ability to dissipate heat, but I'd like to hear various views on the topic
Tnx es 73,
Jim W8ZR

P.S. No, I'm not thinking of building a 100,000 Watt linear amp!

Message-ID: <3F310083.2050808@socketeye.com>
Date: Wed, 06 Aug 2003 09:20:03 -0400
From: John Shriver <jshriver@socketeye.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: 4cx250b@muohio.edu
Subject: Re: Why is Filament Voltage so low?
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

James C. Garland wrote:

> Hi Gang,
> I was surfing EBay and noticed a water-cooled 4CW100000D for sale. The
> specs on the tube show the filament requirements to be 10V at 295 Amps.
> It occurred to me that this is a rather inconvenient rating, since the
> "wires" to the filament must presumably be heavy copper bus bars. So my
> question is, why are tube filaments such a low voltage?

Two reasons, both relating to this tube having a filamentary cathode,
rather than a heater cathode.

First is that the filament also has to be able to handle the plate
current, without this materially changing the current through the
filament. The plate is running at 15 amps. That's already 5% of the
filament current.

The second is that you certainly would be running the filament on AC,
and you don't want the voltage to be an appreciable fraction of the
bias. Otherwise you'll be hum-modulating the signal.

The filament bus bars might also make handy heat sinks. Heck, the
filament bus bars might have to be hollow, with water cooling to take
heat away from the tube's filament seals.

Message-Id: <5.1.0.14.0.20030806095544.048700d0@vuse.vanderbilt.edu>
Date: Wed, 06 Aug 2003 09:58:07 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: Looking for a Sams book or....
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

I need to get a copy of a schematic diagram of a Becker Europa model MU car
radio. It's to help out a friend of mine, who drives a Mercedes on a Yugo
pocketbook. The index sez that it is in Sams auto radio book AR-20. If
anyone has one, I will be glad to reimburse copy and shipping expenses. It
would seem that the book is available, but all I need is that diagram.

A. B. Bonds

content-class: urn:content-classes:message
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
Subject: RE: Lysco
Date: Wed, 6 Aug 2003 11:22:09 -0500
Message-ID: <42ECC21B33DFF245BAFAF57274BA5CE5E5FE4D@stpmse04.stp.guidant.com>
From: "Freeberg, Scott (STP)" <Scott.Freeberg@guidant.com>
To: Old Tube Radios <boatanchors@theporch.com>

There are a few of us Lysco Transmaster owners out here. I also have =
the 600 Transmaster. When I first bought it I was suspicious that it was =
a reproduction because the chassis looked brand new, the front panel was =
gorgeous, and the cabinet wasn't rounded at the front. I've seen =
several over the last few years and it seems like they all that =
different knobs on them. I haven't used mine yet and its still on the =
shelf awaiting initial checkout.=20

73, Scott WA9WFA
WA9WFA Scott in Saint Paul Minnesota
ARRL Life Member, CCA 962, AWA=20
Licensed since 1967
<http://www.qsl.net/wa9wfa>

Mime-Version: 1.0
Message-Id: <p05200f07bb56e5a1d11f@[132.235.45.16]>
Date: Wed, 6 Aug 2003 13:05:36 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: Richard Post <postr@ohiou.edu>
Subject: Fwd: Re: Pictures to help identify Home Brew receiver?
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

After a few minor repairs and a gentle power-up, was listening to the
receiver last night on 80 and 20 meters on a 10 foot piece of wire
for antenna. 40 not yet working.

My little Rad Shack freq counter showed oscillator to be 455KHz or so
over the tuned frequency. Will get the exact figure later. The
unmarked control switches in the product detector (12AU7). The
response appears indeed to be a bit broad, though the set is quite
stable. Will check the circuit for the small back-panel coax
connector. Suspect it may be for an outboard Q-multiplier. No
obvious single signal filter on board. Will check parameters more

thoroughly later.

General layout and circuit flow is indeed quite obvious and as you have described.

The set is so well made that I had also thought it might have been a one-off or a close copy or even an original of one in an Editors and Engineers Handbook edition I did not have. Was hoping it was based on a published article for documentation not so much on the circuit but on the device itself. Documentation helps to add an historical context to the device.

Given the proximity of an outfit such as Drake in the Ohio area, it might have been a design that was either an engineer's attempt at a personal dream receiver or possibly more. Some of the caps are marked with numbers that indicate reference to a schematic.

Definitely a nice piece that is deserving of preservation.

73,

Rich

At 10:40 PM -0600 8/5/03, Henry van Cleef wrote:

> >

>That is indeed a nicely-made set. It may well be a one-off design
>done by somebody with serious design engineering skills and access to
>a good shop for building prototypes.

>

>The general layout, it seems to me, is standard and obvious, unless
>your ring-out proves me dead wrong.

>

>Three tubes to the left of the variable cap are a standard
RF/LO/Mixer.

> The 12AU7 is

>probably 1/2 BFO oscillator and the other side may be a mixer for a
>product detector.

>

>Check out the IF frequency--- Check to see if you have a high
>oscillator If the IF is above 455 Khz, the set is going to broad as
>a barn door,
>and I'd look for some sort of additional "single signal" filter.

>

From: Henry van Cleef <vancleef@eskimo.com>
Message-Id: <200308061805.LAA25868@eskimo.com>
Subject: Re: Looking for a Sams book or....
To: Old Tube Radios <boatanchors@theporch.com>
Date: Wed, 6 Aug 2003 12:05:50 -0600 (MDT)
Cc: boatanchors@theporch.com (Old Tube Radios)
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The esteemed A. B. Bonds has said:

>
> I need to get a copy of a schematic diagram of a Becker Europa model MU car
> radio. It's to help out a friend of mine, who drives a Mercedes on a Yugo
> pocketbook. The index sez that it is in Sams auto radio book AR-20. If
> anyone has one, I will be glad to reimburse copy and shipping expenses. It
> would seem that the book is available, but all I need is that diagram.
>
> A. B. Bonds
>
Suggest you have your friend contact Ed Ebel at Becker. His e-mail is
eebel@harmanbecker.com.

I'll note that Becker has a facility in New Jersey that is devoted to
repair and refurbishment of old Becker radios, and that the most
practical way to deal with a sick Becker radio is to send it to them
for repair/refurbishment---and not overly expensive. They are also in
the market for rebuildable cores of older tube models.

Hank

--
Hank van Cleef (vancleef@eskimo.com, hvanclee@nyx.net)
1986 420SEL

Message-Id: <5.1.0.14.2.20030806134653.03397248@admin.muohio.edu>
Date: Wed, 06 Aug 2003 14:15:06 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: "James C. Garland" <4cx250b@muohio.edu>
Subject: Re: Pictures to help identify Home Brew receiver?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Gang,

The workmanship and general layout reminds me of the homebrew projects of
Harold Bourell, who spent his retirement years in California as W6NZ.

Harold died four or five years ago (well into his nineties) and his callsign has now been reassigned. Before retiring, Harold was a midwesterner. In the 1950's, he was the FCC district head in Kansas City and had a W0 callsign, which I've forgotten. He gave me my General exam in 1955..

Harold was one of the great masters of the homebrew art, and I know at least one of his later projects -- a homebrew version of a KWS-1 -- was published in QST. During the AM era of the early 1950s, he built a beautiful 150 Wattt AM transmitter that used a 4D32 modulated by a pair of 1625s. I had the good fortune to acquire that transmitter in my youth (you can see a 1957 photo of it at <http://www.w8zr.net/history/index.htm>. Like the homebrew receiver, it was built around a grey wrinkle finish rack panel and had engraved front panel lettering. Harold mounted it in an SX-42 receiver cabinet. The PW drive on the receiver is also consistent with Harold's tendency to use commercial dial mechanisms. For instance, on his AM transmitter, he used a Collins 70E8A PTO. Also, like the homebrew receiver, Harold liked to compartmentalize a chassis using aluminum partitions. In his view, this made for a more attractive layout. Attention to shielding was always a priority for Harold.

Harold tended to build his projects using standard and well-known circuits. His AM transmitter was patterned after the circuit of a Collins 32V1. His craftsmanship was higher than any I've ever seen, though I didn't realize it at the time. After he had used a homebrew rig for a few years, Harold would typically sell it to a lucky amateur. His satisfaction came from building the equipment, not using it. I don't know if any of Harold's projects are still around, but I would hope so. They are collector's items, and if this receiver is his work, then it is a very rare find.

Of course, these similarities could merely be coincidences, though that would be quite surprising, considering how few hams were capable of Harold's quality of workmanship.

73,

Jim Garland W8ZR

Message-Id: <5.1.0.14.2.20030806173815.0337f590@admin.muohio.edu>

Date: Wed, 06 Aug 2003 17:40:04 -0400

To: Old Tube Radios <boatanchors@theporch.com>

From: "James C. Garland" <4cx250b@muohio.edu>

Subject: Tube identification question

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

I'm starting to thin out my tube stock, and came across a couple of Western

Electric 417A's. They're not listed in my TV-2/B directory, so I'm wondering if there's an equivalent number? They're cute little tubes.

Tnx,
Jim W8ZR

Message-Id: <3.0.3.32.20030806174930.029c8b54@pop-server.nc.rr.com>
Date: Wed, 06 Aug 2003 17:49:30 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@nc.rr.com>
Subject: RE: Lysco
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Count me in! I've got a nice 600 and it works well, though the exposed B+ jumper on the back is an interesting engineering decision!

: -)
John

PS: As I remember, about 20-25W out?

At 11:22 AM 8/6/03 -0500, Freeberg, Scott (STP) wrote:

>
>There are a few of us Lysco Transmaster owners out here. I also have the 600 Transmaster. When I first bought it I was suspicious that it was a reproduction because the chassis looked brand new, the front panel was gorgeous, and the cabinet wasn't rounded at the front. I've seen several over the last few years and it seems like they all that different knobs on them. I haven't used mine yet and its still on the shelf awaiting initial checkout.

>73, Scott WA9WFA

>WA9WFA Scott in Saint Paul Minnesota

>ARRL Life Member, CCA 962, AWA

>Licensed since 1967

><http://www.qsl.net/wa9wfa>

>

>

>

>---

>

>Checked by AVG anti-virus system (<http://www.grisoft.com>).

>Version: 6.0.502 / Virus Database: 300 - Release Date: 7/18/03

>

Message-Id: <5.1.1.6.0.20030806185524.0292a9b0@ipostoffice.worldnet.att.net>
Date: Wed, 06 Aug 2003 19:02:48 -0400
To: Old Tube Radios <boatanchors@theporch.com>

From: John Dilks - K2TQN <oldradio@worldnet.att.net>
Subject: Re: Tube identification question
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 05:40 PM 8/6/03 -0400, you wrote:

>I'm starting to thin out my tube stock, and came across a couple of
>Western Electric 417A's. They're not listed in my TV-2/B directory, so I'm
>wondering if there's an equivalent number? They're cute little tubes.
>Tnx,
>Jim W8ZR

Hi Jim,

They were use in Telcos in the 60's for VHF and lo-freq microwave &
IF's. They have gold in them-thar-elements. Real low noise.

W2AZL popularized them with his 2-meter converters, back in the 60's,
before solid-state. I had one (still do). You needed a Telco friend to be
able to get them. The ARRL handbook has an AZL converter I think.

Carl Schiedler, W2AZL (SK) worked at Bell Labs in that area, and I think
was instrumental in having this tube made. I knew Carl and had the honor
of visiting him at the labs one day, (a big deal for me.) Carl was very
active in VHF development.

73' John Dilks, K2TQN

Date: Thu, 07 Aug 2003 09:02:23 +1000
From: Brian Goldsmith <brian.goldsmith@echo1.com.au>
Subject: Re: Tube identification question
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <001301c35c6e\$cbecfd50\$890f8490@virtual>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

----- Original Message -----
From: "James C. Garland"

I'm starting to thin out my tube stock, and came across a couple of Western
Electric 417A's. They're not listed in my TV-2/B directory, so I'm
wondering if there's an equivalent number? They're cute little tubes.

**** Jim,look for CV2642 or 2K41.

Brian Goldsmith.

Message-ID: <7A8D78FC6051D41185EC00902788645801E9B11C@csm03.csm.com>
From: James Reid <jreid@ci.santa-maria.ca.us>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: What's it called and where can I get a couple?
Date: Wed, 6 Aug 2003 16:17:24 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Greetings all,

I purchased a couple of varieties of RCA WR-style television signal generators/frequency calibrators. Of course all of them are missing the probe cables. I have the manuals so fabricating them shouldn't be too bad. One thing I would like to find is the plastic deal that splits the ground wire out one side and the center conductor out the other and the coax out the tail end. I can only describe the shape as a 7W night light bulb. Any ideas where I can find a couple three of these?

-Jim W6JCR

From: WA5CAB@cs.com
Message-ID: <4b.322e3ef4.2c62ed3e@cs.com>
Date: Wed, 6 Aug 2003 19:46:06 EDT
Subject: FS: CU-1099/FRR
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_4b.322e3ef4.2c62ed3e_boundary"

--part1_4b.322e3ef4.2c62ed3e_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Groups,

Military surplus almost never turns up in Houston, but these did. I sold a couple of others that I had had for years about a year ago when I decided to use their tube based predecessor for my own setup. Seems like I had more responses than I had multicouplers.

Anyway, have one complete @ \$75.00 (same as before). Have three missing the

input bandpass filter @ \$50.00. Plus shipping.

Condition is good - tested - working (all 8 outputs). The three that are missing the filter I tested the same way that I used the first two for a long time - by plugging the filter I/O cables onto a BNC double-female. Anyone who wanted to use them for MF or LF reception would need to bypass the filter anyway (which is why I had them hooked up that way). Some of them may be short the Spare 3/16 Amp 3AG fuses.

Robert Downs - Houston
<<http://www.wa5cab.com>>
<wa5cab@cs.com>

--part1_4b.322e3ef4.2c62ed3e_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_4b.322e3ef4.2c62ed3e_boundary--

Date: Wed, 6 Aug 2003 19:03:37 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tube identification question
Message-ID: <Pine.OSF.4.55.0308061853230.337839@mail.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

>From the W.E. 4167A spec sheet:

"miniature triode with high transconductance intended for application in the first stages of broad band amplifiers. (Intended for use in the TD-2 radio system).

Max ratings:

PLate voltage: 180

Plate dissipation: 4 watts
Cathode current: 35ma
heater-cathode voltage: 50V
bulb temp: 120C

Operating conditions:

Heater: 6.1V @ 295ma
Plate voltage: 135V
grid voltage: +7.5V (ref negative end of cathode resistor)
cathode bias res: 360 ohms
Plate current: 24ma
Transconductance: 24000 umhos
Amp factor: 43
Plate resistance: 1800 ohms
Capacitances:
input: 9.5pf
output: 1.6pf
plate-cathode: .22pf

Pinout:

1 = plate
2 = nc
3 = heater
4 = grid
5 = grid
6 = cathode
7 = grid
8 = grid
9 = heater

Bob Roehrig
Aurora University Telecom/IS dept.
broehrig@aurora.edu 73 de K9EUI
630-844-4898 fax 630-844-4222

End of BOATANCHORS Digest 3522
